

***Response to Amendment***

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Nov. 23, 2009 has been entered.

Claims 1-2, 4-12, 14-22 and 27-28 are pending for examination. Claims 3, 13 and 23-26 have been canceled. Claims 1, 2, 4-12, 14-16, 18 and 27-28 have been amended.

***Telephone Interview***

A telephone interview has been conducted between applicant representative (William Kircher) and the examiner (Susan Chen) on 02/23/2010 and 02/24/2010. Applicant representative presented a proposed amendment to the examiner on 02/23/2010, in response the examiner indicated that claim 8 has some semantic issues and suggested to further refine the claim. Applicant representative indicated that he

agrees with the examiner's suggestions and authorize the examiner to make the following examiner amendment.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's attorney William Kircher on Feb. 24, 2010.

To the amendment filed on Nov. 23, 2009, the claims are amended as following:

1. (Currently amended) A computer readable storage medium having a computer program stored thereon for implementing a mapping method of classifying a plurality of informational items in an information retrieval system having a database, said computer program comprising a set of instructions for implementing said method comprising the steps of:

identifying a first informational item, wherein said first informational item includes one of a first frequently asked question or other data;

identifying a second informational item, wherein said second informational item includes one of a second frequently asked question or other data;

dynamically updating at least one creating a general relationship field with initial integer weight values to define defining similarities of respective characteristics between said first informational item and said second informational item in an information retrieval session, wherein said fields are is used for representing an automated data item classification process comprising; integrating said classification process and said informational items with a the combination of one or more data aging and pruning feedback algorithms working in conjunction to produce an to produce a weighted output simulating a non-conventional Bayesian-type Belief Network;

detecting an access of said first informational item;

detecting an access of said second informational item;

establishing that the presence or absence of a relationship link exists between said first informational item and said second informational item;

determining an integer value weight refining said initial integer weight values of said general relationship field associated with said first and second informational items based on the a historical frequency of said relationship link being accessed by a user, wherein said initial integer weight values are changed as said frequency increases and on the prior presence or absence of said relationship link;

~~applying the combination of at least one of said algorithms to said first and second informational items relative to said integer value weight of said relationship link to produce an output;~~

~~assigning said integer value weight to said output; and~~

storing said weighted output being at least partially indicative of the classification of said informational items.

2. (Previously presented) The computer readable storage medium as recited in claim 1 wherein said steps of identifying and detecting the second informational item includes identifying and detecting of a plurality of informational items.

3. (Cancelled)

4. (Currently amended) The computer readable storage medium as recited in claim 2, further comprising the step of:

applying an said algorithm for data aging wherein the usage of the said relationship link is monitored and used as feed back for ~~the integer value weight~~ said initial integer weight value associated with the said relationship link.

5. (Currently amended) The computer readable storage medium as recited in claim 4, further comprising the step of:

applying a said pruning algorithm wherein external information regarding the usefulness of at least one relationship link is utilized to modify ~~the integer-~~

~~value-weight~~ said initial integer weight value or existence of a recorded relationship link.

6. (Previously presented) The computer readable storage medium as recited in claim 5, wherein said pruning algorithm performs the removal of irrelevant relationship links subsequent to the data aging feedback process.

7. (Previously presented) The computer readable storage medium as recited in claim 5, wherein said pruning algorithm makes use of a user determined feedback of the usefulness of a relationship link.

8. (Currently amended) The computer readable storage medium as recited in claim 2, wherein a said plurality of algorithms ~~is~~ are used and wherein said initial integer weight value of said relationship link ~~the integer value-weight~~ is adjusted in direct proportion to the number of said algorithms used to determine the existence of said relationship link.

9. (Previously presented) The computer readable storage medium as recited in claim 2, wherein said relationship link is positioned in a list in direct proportion to the degree of consensus among said algorithms.

10. (Previously presented) The computer readable storage medium as recited in claim 2, wherein each algorithm used runs independently of all other algorithms.

11. (Previously presented) The computer readable storage medium as recited in claim 2, further comprising the step of merging the outputs of said algorithms.

12. (Previously presented) The computer readable storage medium as recited in claim 2, further comprising the step of recording said relationship link in said non Bayesian-type Belief Network.

13. (Cancelled)

14. (Currently amended) A computer readable storage medium having a computer program stored thereon for providing classification of informational items in an information retrieval system having a database, said computer program having a network structure which allows cycles comprising:

means for detecting the access of informational items, wherein said informational items include one of a frequently asked question or other data;

means for dynamically ~~updating at least one~~ creating a general relationship field with initial integer weight values to define ~~defining~~ similarities of respective characteristics ~~between said a first informational item and said a second informational item in an information retrieval session, wherein said fields are is~~ used for representing an automated data item classification process;

means for ~~applying~~ integrating said data item classification process ~~comprising and said informational items with~~ the combination of ~~one or more data~~ aging and pruning feedback algorithms ~~working in conjunction to produce an to~~ produce a weighted output simulating a non-conventional Bayesian-type Belief Network;

means for establishing the presence or absence ~~existence~~ of relationship links between said informational items to enhance the effectiveness of said information retrieval system;

means for refining said initial integer weight values of said general relationship field associated with said informational items based on a historical frequency of said relationship links being accessed by a user, wherein said initial integer weight values are changed as said frequency increases and on the prior presence or absence of said relationship links;

means for weighting said relationship links, said weight being directly proportional to the outcome of the combination of one or more said algorithms;  
and

means for storing said relationship links and relationship link weights said weighted outputs.

15. (Previously presented) The computer readable storage medium of claim 14 including:

means for aging said relationship links; and

means for pruning said relationship links.

16. (Previously presented) The computer readable storage medium of claim 15 including means for merging the resulting output of said algorithms into a knowledge network.

17. (Original) A computer readable storage medium having stored thereon a computer program for implementing a method of classifying a plurality of information items in an information retrieval system, said computer program comprising a set of instructions for implementing the steps recited in claim 2.

18. (Previously presented) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for clustering the resulting output of said algorithms into a knowledge network.

19. (Original) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through weighting of said relationship links.

20. (Original) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for



improving the usefulness of said relationship links through pruning of said relationship links.

21. (Original) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through aging of said relationship links.

22. (Original) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through weighting, pruning and aging of said relationship links.

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Previously presented) The computer readable storage medium as recited in claim 4, wherein said algorithm for data aging runs as a function of traffic load to age the relationship links according to relevance of the relationship links.

28. (Currently amended) A computer readable storage medium having a computer program stored thereon for implementing a mapping method of classifying a plurality of informational items in an information retrieval system having a database, said computer program comprising a set of instructions for implementing said method comprising the steps of:

detecting an access of a first informational item, wherein said first informational item includes one of a frequently asked question or other data;

detecting an access of a second informational item, wherein said second informational item includes one of a frequently asked question or other data;

establishing ~~that~~ the presence or absence of a relationship link ~~exists~~ between said first informational item and said second informational item;

dynamically ~~updating at least one~~ creating a general relationship field with initial integer weight values to define ~~defining~~ similarities of respective characteristics between said first informational item and said second informational item in an information retrieval session, wherein said fields ~~are~~ is used for representing an automated data item classification process ~~comprising;~~ integrating said classification process and said informational items with the combination of one or more data aging and pruning feedback algorithms working

~~in conjunction to produce an~~ to produce a weighted output simulating a non-conventional Bayesian-type Belief Network;

~~applying the combination of one or more said algorithms directly~~  
~~proportional to said integer value weight of said relationship link; and~~

refining said initial integer weight values of said general relationship field  
associated with said first and second informational items based on a historical  
frequency of said relationship link being accessed by a user, wherein said initial  
integer weight values are changes as said frequency increases and on the prior  
presence or absence of said relationship link; and

~~combining and merging the output of said algorithms to pre-populate the~~  
~~informational retrieval system; and~~

storing said weighted output being at least partially indicative of the  
classification of said informational items.

### ***Terminal Disclaimer***

The terminal disclaimer filed on 10/14/2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 6,842,748 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Allowable Subject Matter***

Claims 1-2, 4-12, 14-22 and 27-28 are allowed.

Claims 1, 14 and 28 are allowable because the prior art on record or that encountered in searching for the invention, fails to disclose or suggest the features of instant invention – “an automated informational items classification process of a frequently asked question system that dynamically creates a general relationship filed with initial integer weight values to define the similarity of respective characteristics between said informational items in an information retrieval session and integrating said classification process and said informational items with a combination of data aging and pruning feedback algorithms to produce an adjustable weighted output for simulating a non-conventional Bayesian-type Belief network” in a combination as claimed by applicant.

Claims 2, 4-12 and 15-22, respectively depend on claims 1, 14 and 28, therefore, are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUSAN Y. CHEN whose telephone number is (571)272-4016. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mofiz Apu can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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